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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,035	02/12/2002	Z. Gerald Liu	4695-00009	7509
26753	7590	10/26/2005	EXAMINER	
ANDRUS, SCEALES, STARKE & SAWALL, LLP 100 EAST WISCONSIN AVENUE, SUITE 1100 MILWAUKEE, WI 53202			TRAN, HIEN THI	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/075,035

Applicant(s)

LIU ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 9, 12, 15-17 are objected to because of the following informalities:

In claim 9, line 15 apparently --end-- should be inserted after “upstream” and “downstream”. See claim 12, 16-17 likewise.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 15, line 15 it is unclear as to how the three catalytically treated surfaces are related to the plural catalytically treated surfaces set forth in line 14.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al (5,863,311).

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With respect to claims 9, 12, 15, Nagai et al discloses an exhaust aftertreatment combined filter and catalytic converter comprising:

a plurality of channels, each having both: a) a flow-through channel catalytically reacting with an exhaust; and b) a wall-flow channel trapping particulate (Figs. 3A, B, 14A, B).

the exhaust aftertreatment combined filter and catalytic converter comprises a plurality of sheets, at least one of which comprises filter media sheet defining said channels (col. 7, lines 35-45; col. 10, lines 53-65, Figs. 3A, B, 14A, B).

Nagai et al discloses the overlapped channel sections in the flow channels in Figs. 3A, B, 14A, B in Nagai et al.

With respect to claims 9, 16, Figs. 14A-14B in Nagai et al show that the exhaust gas flow axially through the combined filter and catalyst converter from an upstream end to a downstream end, said filter sheet having a first face facing upstream end and a second face facing downstream end, the flow-through channel having a portion extending downstream from the second face of the media sheet; the combined filter and catalytic converter having first, second and third sequential surfaces in the flow channel, wherein exhaust gas flows firstly along and through said first sequential surface, then secondly along and through said second sequential surface, then thirdly along said third sequential surface wherein said first face of said filter media sheet 9 is said first sequential surface, said second face of the filter media sheet 9 is said second sequential surface and said overlapped section of the flow-through channel is said third sequential surface.

With respect to claims 10-11, 13-15, Nagai et al further discloses that the channels have plurality of catalytically treated surfaces and that the surfaces of the channels are treated with

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different catalysts (see, for example, col. 13, lines 23-31 and col. 14, lines 20-23; col. 4, lines 25-32, Fig. 11).

With respect to claims 12, 17, Figs. 14A-14B in Nagai et al show that the exhaust gas flow axially through the combined filter and catalyst converter from an upstream end to a downstream end, said filter sheet having a first face facing upstream end and a second face facing downstream end, the flow-through channel having a portion extending upstream from the second face of the media sheet; the combined filter and catalytic converter having first, second and third sequential surfaces in the flow channel, wherein exhaust gas flows firstly along and through said first sequential surface, then secondly along and through said second sequential surface, then thirdly along said third sequential surface wherein said portion of flow-through channel is said first sequential surface; said first face of said filter media sheet 9 is said second sequential surface, said second face of the filter media sheet 9 is said third sequential surface.

Instant claims 9-17 structurally read on the apparatus of Nagai et al.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 9-17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1454. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Hien Tran*

HT  
October 24, 2005

**Hien Tran**  
**Primary Examiner**  
**Art Unit 1764**